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The purpose of this descriptive study is to posit information concerning "Developmental Psychogenic Mutism." The study has attempted to apply this descriptive term, Developmental Psychogenic Mutism, to certain children displaying severely delayed speech development of unknown etiology.

Three children who were severely delayed in the acquisition of speech were selected as subjects for this study. The similarities they shared were compared and contrasted with four of the recognized causes of severely delayed speech development in an attempt to determine whether or not the descriptive term Developmental Psychogenic Mutism should be applied.

Each subject was hospitalized in Amos Cottage for behavioral and diagnostic therapy in an attempt to determine potential. The case histories of each subject were presented, and each subject was studied in diagnostic therapy for a period of not less than four months. Tests of receptive abilities and performance were administered to each subject. The parents were also studied in an attempt to determine the intrafamilial relationships.

The results of the study indicate that the subjects in this study could not be classified as deaf, mentally retarded, aphasic or psychotic. They shared certain

similarities in common, such as: normal early developmental sequences, disturbed home situations, hyperactivity, normal intelligence on two standardized tests and ability to vocalize and imitate sounds.

Developmental Psychogenic Mutism was applied as a diagnostic term for these children because of their apparent emotional problems resulting in the absence of speech and because their behavior and background were sufficiently different from other known, diagnostic categories.

DEVELOPMENTAL PSYCHOGENIC MUTISM AS A CAUSE OF SEVERELY DELAYED SPEECH DEVELOPMENT

by

Tamara Kay Hahn

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the Faculty of the Graduate School at
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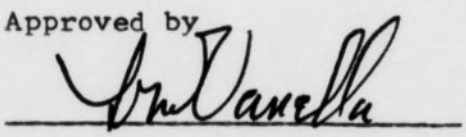

APPROVAL SHEET

This thesis has been approved by the following committee of the faculty of the Graduate School at the University of North Carolina at Greensboro.

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CHAPTER I

INTRODUCTION

> Since a child develops speech in an interpersonal setting, speech or language difficulties inevitably mean that he has encountered emotional stress within his family deeper or different from that of a child who has developed adequate speaking skill. Disorders such as mutism, faulty articulation or stuttering may have occurred as a child's way of coping with unfavorable attitudes and treatment from other family members.[1]

Traditionally, causes for delayed speech development have been viewed as either organic or non-organic. While non-specific, the distinction between organic and non-organic causation has been useful to clinicians, because it alludes to the fact that similar symptoms may be produced by any number of causes and that emotional disturbance (non-organic) may produce problems similar to those produced by organic impairments. Research has revealed no clear-cut dichotomy between organic and non-organic disorders. Further, non-organic or organic conditions may give rise to secondary psychological effects, which increases the handling problem.[2]

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[1]Jane Beasley, "Relationship of Parental Attitudes to Development of Speech Problems," Journal of Speech and Hearing Disorders, XXI (September, 1956), p. 317.

[2]Jane W. Kessler, Psychopathology of Childhood (Englewood Cliffs, New Jersey: Prentice Hall, 1966), p. 130.

When a child is delayed in speech development and no organic causes are found, emotional problems are often suspected.[3] The child with delayed speech is one whose spoken vocabulary is significantly below what would be expected on the basis of his age and an estimate of his intelligence. As a group these children differ in degree from children whose speech is considered to be normal. Adjustment mechanisms of children with speech delay are similar to those of other children, except that they are less expertly used.[4] Most of these delayed speech children, with or without therapy, attain normal speech by the age of six.[5]

Emotionally based problems may also occur in the form of mutism. Elective mutism is a descriptive term which was first used by Tramer in 1934 to describe children who, with all but a small group of intimates and relatives, remain mute. This type of mutism is a chronic one which lasts for many years. No demonstrable organic basis has been found for this disorder. Elective mutism can be defined as a neurotic symptom complex which can occur in

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[3]Nancy E. Wood, Delayed Speech and Language Development (Englewood Cliffs, New Jersey: Prentice-Hall, 1964), p. 40.

[4]William M. Cruickshank, ed., Psychology of Exceptional Children and Youth (Englewood Cliffs, New Jersey: Prentice-Hall, 1966), p. 212.

[5]Hilde M. Adams and Philip J. Glasner, "Emotional Involvements in Some Forms of Mutism," Journal of Speech and Hearing Disorders, XIX (March, 1954), p. 59.

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children of average intelligence without neurological impairment and which first becomes manifest with separation from the family, usually at the time of school entrance.[6]

Some types of mutism in children have been referred to as voluntary aphasia or voluntary mutism. Children with these disorders have been described as those who have taken refuge in mutism from a threatening situation. Voluntarily mute children are usually sensitive, and they react to depressed situations by becoming mute.[7]

Another form of mutism in children may occur when a child who has a speech defect is teased by his playmates. He may suddenly refuse to speak. This mutism is usually temporary and the child will begin to talk again as soon as the disturbing factor is eliminated.[8]

Certain similarities are recurrent in the above-mentioned types of emotionally based speech problems. Home conditions have been considered by most investigators to be unstable.[9, 10, 11] As a group, mothers of delayed-speech

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[6]Abraham Elson, et al., "Follow-Up Study of Childhood Elective Mutism," Archives of General Psychiatry, XIII (August, 1965), p. 182.

[7]Adams and Glasner, "Emotional Involvement in Mutism," p. 56.

[8]Ibid., p. 60 [9]Elson, "Elson, Elective Mutism," p. 182.

[10]Adams and Glasner, "Emotional Involvement in Mutism," p. 60.

[11]Ibid., p. 61.

children have been found to be overprotective, rigid individuals who are restrictive in their demands upon their children.[12] In a study by Elson, maternal rejection and paternal disinterest were common features in the background of electively mute children. A hostile, ambivalent dependency was also noted in the mother-child relationship.[13]

A small number of children have been observed who have characteristics of the disorders mentioned above, but who cannot be placed into either category. These children are mute, not only with strangers, but also with their own families. They have not developed speech or they are severely delayed in speech development. This study attempts to establish a possible term that will apply to the several children who seem to fall into this category.

Purpose of the Study

The purpose of this descriptive study is to posit information concerning "Developmental Psychogenic Mutism." The study will attempt to apply this descriptive term, Developmental Psychogenic Mutism, to certain children displaying severely delayed speech development of unknown etiology.

Plan of the Study

Selection of Subjects

Three children who have attained a minimum of five

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[12] Cruickshank, Exceptional Children, p. 211.

[13] Elson, "Elective Mutism," p. 186.

years of age and who have a reported expressive vocabulary of no more than three words were selected to be studied. The children were patients of the Developmental Evaluation Clinic and Amos Cottage (described below). They were admitted to the Cottage on referral from the Developmental Evaluation Clinic because of certain behavioral, developmental and verbal characteristics displayed during initial evaluations at the Developmental Evaluation Clinic.

The Developmental Evaluation Clinic was established in 1961 by a grant from the Children's Bureau, United States Department of Health, Education and Welfare for the purpose of training professionals in evaluating children who are suspected of being mentally retarded. An interdisciplinary staff composed of a pediatric neurologist, child development specialist, physical therapist, psychologist, social worker and speech pathologist evaluate the child and his family from the viewpoint of each discipline. After the tests are completed a staff conference is held and the findings are interpreted to the parents.

Amos Cottage is a forty bed hospital unit of North Carolina Baptist Hospital which was established for treatment of retarded and emotionally disturbed children. It is located in Winston-Salem, North Carolina. A pediatric neurologist is the medical director. A full staff of nurses and aides provide twenty-four hour care and supervision of the patients. A dietitian plans not only the regular

meals but also special diets which are required for many children with specific problems. A special education supervisor is in charge of therapeutic groups which are in session five days a week. Through the affiliation of Amos Cottage with the Developmental Evaluation Clinic, the services of a psychologist, child development specialist, social worker and speech pathologist are available on a part-time basis.

Basis for Differentiation from Other Forms of Mutism

Four disorders are generally recognized as causes of severely delayed speech development. These are: deafness, childhood aphasia, mental retardation and childhood psychosis.[14] The four disorders are discussed in detail to establish and differentiate the criteria for Developmental Psychogenic Mutism. Because of the very close relationship to language disorders, the verbal aspects of these problems are emphasized.

Severe or Profound Hearing Loss

Deaf persons are those in whom the sense of hearing is nonfunctional for ordinary purposes of life. The syndrome of deafness is generally discussed in two classes: (1) congenitally deaf--those who were born deaf, (2) adventiously deaf--those who were born with normal hearing but in whom

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[14]Helmer R. Myklebust, Auditory Disorders in Children (New York: Grant and Stratton, 1954), p. 121.

the sense of hearing became nonfunctional at a later date through illness or accident.[15] The later the onset of deafness in the timetable of language growth, the closer the child will progress to normal speech.[16]

Children who are congenitally deaf have a marked disturbance of language development.[17] In order to develop speech normally, audition is depended upon because it serves as a major receptor for incoming speech stimuli.[18] If and when a child with a severe or profound hearing loss begins to speak, he usually has abnormal vocality.[19]

The primary presenting complaint of parents of deaf children is that the child does not respond to sound in the environment or that he does not appear to understand what is said to him.[20] Case histories reveal that deaf children do not differ from normal children in the mean age of walking or sitting.[21] Parents often report delayed emotional development. A possible reason for the delay in

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[15]Lee Edward Travis, ed., Handbook of Speech Pathology (New York: Appleton Century Crofts, 1957), p. 509.

[16]Cruickshank, Exceptional Children, p. 122.

[17]Nancy E. Wood, Delayed Speech and Language Development (Englewood Cliffs, New Jersey: Prentice-Hall, 1964), p. 43.

[18]Ibid., p. 42.

[19]Nathan M. Levin, ed., Voice and Speech Disorders (Springfield, Illinois: Charles C. Thomas), p. 543.

[20]Wood, Delayed Speech Development, p. 43.

[21]Myklebust, Auditory Disorders, p. 131.

emotional development is the deaf child's inability to understand what is requested of him, and therefore he is confused by his environment.[22]

On observation the child with a severe hearing loss appears to depend on gestures for communication. He not only uses gestures himself, but he may readily understand the gestures of others. The interpretation of gestures provides the deaf child with a means of communication which his auditory dysfunction takes from him.[23]

The deaf child is unduly sensitive to movement and other visual clues. The child whose hearing is normal learns very early in life that hearing explores the world in all directions simultaneously. The child with impaired auditory acuity has only one distance sense, vision. The child who does not hear uses vision to explore his environment. Often upon entering a room he will search through drawers and closets to gain a clearer perspective of the room.[24] The deaf child demonstrates a high degree of sensitivity to tactile sensation. Because of his inability to use his hearing, the child with peripheral hearing loss finds it necessary to be extremely dependent on his residual sensory capacities. He will turn rapidly if he is touched on the back. He may tactually explore his environment,

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[22] Ibid., p. 137.

[23] Ibid., p. 144.

[24] Ibid., p. 129.

including people, in an attempt to obtain as many cues as possible from his surroundings. The sensation of touch often seems to be amplified in deaf children.[25]

Formal audiological examinations usually yield consistent responses among deaf children. A wide variety of tests can be administered to children with peripheral hearing losses and each test should correlate with the other tests. The decibel variance for any given frequency will probably not vary more than plus or minus five decibels.[26]

The deaf child is one who is alert to his environment, and who uses every means at his disposal to interpret his surroundings. He relates to individuals, attempts to find ways of expressing his needs and can understand symbolic meaning.[27]

Mental Retardation

One of the most difficult decisions in determining the cause of delayed speech and language development involves the separation of other problems from mental retardation. Mental retardation has become a rather ill-defined, nebulous designation, which gives no indication of degree, cause or prognostic implication.[28] Because of the limitations of many

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[25] Ibid., p. 129.

[26] Travis, Handbook of Speech, p. 277.

[27] Myklebuts, Auditory Disorders, p. 137.

[28] Ibid., p. 135.

definitions of mental retardation, an operational definition is employed in this paper. Mental retardation: it is a reduced mental capacity in all functions that are basic to learning.[29]

Retarded mental development will affect the development of speech in both its receptive and expressive aspects, and it is the most common cause of delayed speech development when hearing is normal. The onset of speech is delayed when it is associated with mental retardation. The single-word stage of speech may persist for many years.[30]

A mentally retarded child usually will be delayed in motor areas. Certain behavioral responses are expected: difficulty in throwing a ball, riding a tricycle and climbing.[31]

The retarded child has characteristic responses to different types of activity. The retarded child uses gestures but he is not overly dependent on them. He responds to sound and uses his hearing projectively. His laughing and smiling are characteristic of a much younger child. He will attend to facial expressions but he does not rely on them for communication. He is not extremely sensitive to tactile stimulation.[32]

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[29] Ibid., p. 137.

[30] Halbert R. Robinson, The Mentally Retarded Child (New York: McGraw Hill Book Company, 1965), p. 225.

[31] Muriel E. Morley, The Development and Disorders of Speech in Children (london: C. and S. Livingstone, 1957), p. 210.

[32] Myklebust, Auditory Disorders, p. 224.

Before a child is classified as mentally retarded, considerable supportive evidence must be obtained and every possible avenue must be explored to be sure that the problem is mental retardation.[33]

Childhood Aphasia

Congenital aphasia is a term which may mean almost anything the individual clinician wishes it to mean.[34] The term has been borrowed from adult neurology. Although organic causation is generally postulated, there are often no supporting signs of history of trauma. Organicity is postulated on the basis of exclusion of emotional factors rather than positive evidence of organicity.[35]

Aphasic disorders in children may be classified as predominantly expressive, predominantly receptive, mixed receptive-expressive or central. Certain characteristics are present in all types of aphasia, yet each form has specific characteristics which distinguish it from the other types. This diagnosis is often very difficult, because all types may appear to be present in any given case.[36]

Predominantly expressive aphasic children comprehend speech. Sometimes emotional problems are superimposed, but in general his behavior is less disturbed than other forms

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[33]Wood, Delayed Speech Development, p. 37.

[34]Cruickshank, Exceptional Children, p. 213.

[35]Kessler, Psychopathology of Children, p. 131.

[36]Ibid., p. 132.

of aphasia. His symptomatology is primarily linked to his lack of speech. He is quiet, amenable and he has a good relationship with his environment. He may be mute, rarely vocalizing to the extent of using jargon, imitative speech or echolalia. Frequently he lacks normal facial animation and he may be lethargic. Motor function is usually superior to children having other types of aphasia.[37]

Receptive aphasic children are incapable of understanding the speech of others. He can hear speech but he cannot comprehend the meaning. Frequently these children will ignore not only speech sounds, but all sounds, and they are often presumed to be congenitally deaf. These children are typically erratic in behavior. The receptive does not develop speech normally, but he may use jargon freely. The motor function of the speech apparatus is disturbed.[38]

Mixed receptive-expressive aphasia is difficult to differentiate from predominantly expressive aphasia. Frequently both diagnoses will be used. The child with mixed aphasia cannot understand or produce speech because he has symbolic disturbance in both aspects. Behavior symptomatology cannot be differentiated from predominantly receptive aphasia. Long term diagnostic therapy is necessary to make a differential diagnosis.[39]

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[37] Myklebust, Auditory Disorders, p. 143.

[38] Ibid., p. 150.

[39] Ibid., p. 151.

Central aphasia is a severe language disorder. There is marked disturbance of all language functions and general behavior. Extreme deviation of symptomatology is present. Children with central aphasia can usually be differentiated from mentally retarded, psychotic or deaf children but long clinical observation is vital in making the diagnosis. The prognosis for the acquisition of speech is poor.[40]

In general, the aphasic child does not acquire speech. His vocalizations do not have characteristic tonal quality. He uses improvised sounds in a characteristic manner but he does not use vocalizations projectively. He does not use gesture. He may or may not respond to sound. He does not attend to or avoid facial expression. He is not unduly sensitive to tactile stimulation.[41]

Childhood Psychosis

The most severe cases of emotional disturbances are very likely to be classified under the label of childhood schizophrenia or autism, general categories which have come to be used for many forms of psychosis, or loss of reality contact which originates in infancy or early childhood.[42] Because of the controversy over the classification of childhood psychosis, this study will present only a general description of the symptomatology of psychotic children.

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[40] Ibid., p. 152.

[41] Ibid., p. 163.

[42] Robinson, Retarded Child, p. 227.

Psychosis in childhood may be defined as a general withdrawal of interest in the environment, diminution of appropriate emotional responses to real situations and a retreat to an inner imaginary world.[43]

The etiology of childhood psychosis has been the subject of considerable debate, but of little systematic, objective study. Physical problems have been suspected by many investigators. Parental attitudes and the home atmosphere have also received considerable attention as possible causes of psychosis in childhood.[44] At least two investigators, Kanner and Goldfarb, express belief that the etiology may be based on two causes occurring simultaneously: (1) physical predisposition, (2) cold, ungiving parents. The occurrence of these two factors at the same time may create a cyclical pattern of interaction, leading to an emotional pathology in the child.[45]

Formal psychological, audiological and developmental testing is usually not possible with a psychotic child. The child may appear not to hear or will refuse to do what is asked of him. Conclusions must be drawn from observation of the child's interaction with his environment, from personal interviews with the parents and from direct observation of the child's behavior.[46]

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[43] Ibid.

[44] Ibid., p. 232.

[45] Ibid.

[46] Cruickshank, Exceptional Children, p. 213.

Often the initial complaint of parents is that the child does not seem to hear. They may report sporadic use of the auditory mechanism. Because of the inability of the child to respond to formal audiological testing, the clinician must depend entirely on observation for his diagnosis. Many times a diagnosis of peripheral deafness is made, yet continued involvement usually reveals that there is no true dysacusis present.[47]

Most psychotic children resort to direct means to make their wants known or to impress their feelings on others. These means may include forcing another child or an adult to enter into a situation by striking out at an unassociated object or person.[48] For many of these children their only form of security is found in their possessions, in a compulsive daily routine and a sameness in their environment. The child may have repetitive, complicated hand rituals, which are called manneristic behavior.[49]

Some characteristics are fundamental among children who suffer from childhood psychosis. The child usually does not develop speech. If he does develop speech he tends to use words as objects rather than a form of communication. The psychotic child does not vocalize projectively or improvise sounds for pleasure. His laughing, smiling and crying are appropriate. He is not unduly sensitive to movement or

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[47]Myklebust, Auditory Disorders, p. 189.

[48]Cruickshank, Exceptional Children, p. 213.

[49]Robinson, Retarded Children, p. 229.

to other visual clues. Not only does the psychotic child not attend to facial expression but he will avoid eye contact.[50]

Unlike the aphasic, the deaf and, to some degree, the mentally retarded child, a psychotic child's failure to speak is a secondary result of the primary defect. The clinician can deal directly with the lack of speech in the aphasic, deaf or retarded children. The psychotic child's emotional problems are of primary importance to the clinician. The speech problem must be dealt with in relation to the overall severely disturbed condition.[51]

Evaluative Materials

In order to differentiate Developmental Psychogenic Mutism certain evaluative materials are chosen because they evaluate certain aspects of ability. These materials are: The Peabody Picture Vocabulary Test, the Leiter International Performance Test and a peripheral oral mechanism examination.

Peabody Picture Vocabulary Test

The Peabody Picture Vocabulary Test (P.P.V.T.) is designed to provide a well standardized estimate of a subject's hearing vocabulary. The test is useful with normal, retarded, cerebral palsied and expressive aphasic children.

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[50]Myklebust, Auditory Disorders, pp. 195-213.

[51]Kessler, Psychopathology, p. 134.

The test is not a very useful instrument with deaf children because of their inability to acquire speech through hearing.[52]

Leiter International Performance Test

The Leiter International Performance Test (L.I.P.T.) was developed as a means for testing the intellectual functioning of deaf children. This is a useful instrument for testing a child's ability when the child is non-verbal. This instrument can be used with retarded and aphasics as well as with deaf children.[53]

Peripheral Oral Mechanism Examination

The purpose of the peripheral oral mechanism examination is to evaluate specific neuromuscular functioning. The human mechanisms primarily used in speech activities are examined in this test. They are the muscles of the lips, tongue, soft palate, pharynx and larynx. This examination is useful in the diagnosis of all cases of speech delay. The examination is administered in accordance with standard procedure for evaluating movement, direction and strength of the musculature involved.

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[52]Lloyd M. Dunn, Manual for the Peabody Picture Vocabulary Test (Minneapolis: American Guidance Service, 1956), p. 60.

[53]Russell Graydon Leiter, Evidences of the Reliability and Validity of the Leiter Tests, (Chicago: C. H. Stoelting, 1948), p. 5.

Other Diagnostic Activities

Each child is observed in diagnostic therapy for a period of not less than four months. Efforts are made to observe the child in many different situations, such as group activities, play periods and mealtime. Behavioral, verbal and developmental activities are noted and recorded for each child. An initial evaluative report and a final diagnostic summary are written for each child.

The next three chapters are devoted to a presentation of the three subjects. Emphasis is placed not only on the period of diagnostic therapy but also on a complete medical, developmental and sociological history on each child. Supportive conclusions for the establishment of the term Developmental Psychogenic Mutism are presented in the fifth chapter of the study.

CHAPTER II

SUSIE L.

History

Susie L. was the first child born to young parents. Her father was twenty and her mother was eighteen at the time of her birth. She was the product of an uncomplicated pregnancy and delivery. No complications were noted on examination following delivery and she was discharged with her mother three days after birth.

The attending pediatrician reported that Susie followed objects with her eyes at two and a half months, sat with support at four months, sat without support at six months, crawled at six months and walked at eleven months. Her mother reported that she began to babble at four months, but she did not begin to say single words until two and a half years of age.

Her parents' initial concern about Susie's apparent speech delay was expressed when Susie was eighteen months old. Susie's apparent speech delay was discussed with the pediatrician who said there was no need for concern. Unable to accept this, Susie's mother sought the advice of another pediatrician and was subsequently referred to the

Speech and Hearing Clinic at North Carolina Baptist Hospital, Winston-Salem, North Carolina. Susie was seen by the clinic's audiologist at the age of three years and four months. The primary complaint was lack of speech. Although a formal audiological was not performed, the examiner was able to determine that hearing loss was not a primary problem. The family was then referred to the Developmental Evaluation Clinic (D.E.C.).

Susie was seen for a partial evaluation at the age of three years and five months. Although Susie was not formally testable, the following impressions were reported by some clinical staff members: she was shy and immature, but looked directly at people, responded to her name, said no words but frequently made high pitched squeals. Because the staff did not feel that they could adequately determine Susie's problem, a full evaluation was scheduled.

Two months later (age: three years, seven months) the full evaluation was performed. Many of the examiners found it difficult to test Susie. One reason for the difficulty was that Mrs. L. interfered with the evaluation; i.e., she would help Susie perform tasks which were requested by the examiners. Mrs. L. seemed unable to set limits on Susie's behavior. Susie was found to be functioning between two and three and a half years of age. No physical problems were noted. Lowest performances were in the area of speech development. The speech pathologist concurred that a hearing

loss was not a factor for non-development of speech. Susie's problems appeared to be emotional rather than physical.

The staff felt that a total family approach was indicated. The need for discipline was discussed with Susie's parents. The parents were told that Susie was a controlling, manipulative child and that evidently little was done to counteract this behavior. The parents were referred to counseling in order to help them gain insight and to understand their feelings about Susie. A re-evaluation was scheduled one year later.

Susie was next seen at the age of four years and eight months. Her parents had not entered counseling and Susie's behavior has worsened in that she had become more unmanageable. During the numerous testing situations Susie clung to her father, sucked her thumb and screamed. Once, when she was prevented from leaving a room, she kicked the physical therapist. Formal testing seemed impossible. Her parents reported that they were still unable to set limits on behavior. The recommendation of the staff was hospitalization in Amos Cottage for environmental and individual behavioral therapy. Susie was admitted to the Cottage three months later.

Observation and Diagnostic Therapy

Susie's initial adjustment to the Cottage was good. She became less hyperactive and lost many of her infantile

mannerisms. She stopped sucking her thumb, no longer screamed and began to build relationships with other children and adults. She ate well and responded to behavioral limits. Prior to admission Susie would not take naps, refused to be put to bed without being rocked and refused to have her hair washed. None of these difficulties were noted in the Cottage.

A variety of treatments was prescribed for Susie. Speech therapy, volunteer parents and play groups were the most significant aspects of the therapeutic program. The volunteer parents often took her to their home where she was allowed to play with their daughter, who was the same age. The play groups afforded her the opportunity to interact with many children and receive instruction. The objective of speech therapy at the time was diagnostic.

In the therapeutic situation the following was noted: Susie enjoyed sound games and was responsive to them. She could protrude her tongue, move it from side to side, elevate her palate and imitate combinations of syllables on request. No organic problems were noted following an oral speech examination. She could imitate the sounds of various animals, but she would not perform this consistently upon request in therapy. Other staff members reported that she would often make the sounds in various situations.

The volunteer parents made no requests on her verbally. They did not appear to be concerned about Susie's lack of

speech. Four months after entrance into Amos Cottage, Susie began to speak to her volunteer parents. Initially she spoke in single words. These words were not imitative and were used appropriately.

With the acquisition of single words, Susie made rapid speech progress. She began to speak in phrases and simple sentences. No difficulty was observed in speaking and she usually initiated most communication. Most of her words were articulate and intelligible.

During the time Susie remained in the Cottage the parents were asked to enter counseling and they agreed to do so. The counselor learned that Susie's mother had rejected her daughter. The guilt feelings which accompanied the rejection caused her mother to become overprotective.[54] An example of the relationship between mother and daughter occurred when her parents were returning Susie to the Cottage after a visit. Mrs. L. requested that she be allowed to dress her daughter. The request was granted. For two hours Susie screamed, kicked and refused to allow her mother to dress her. Her mother was unable to control Susie's behavior.

Susie often regressed after her parents' visits. Because of this they were asked not to visit for a period of

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[54]This phenomenon is discussed in Cruickshank's Exceptional Children, pp. 211-213. Parents, particularly mothers may become overprotective when they reject their children, out of fear that they might be labeled poor parents.

seven weeks. Susie made rapid progress in the area of speech development during this period. When her parents visited after this seven-week period, Susie put her hand over her mouth to keep from speaking during the entire visit.

During the period of time they were not visiting their daughter both parents made a definite effort to resolve their feelings about Susie. Observation of subsequent visits revealed evident progress. Because of the progress that both Susie and her parents had made, Susie was discharged from the Cottage. She had been hospitalized for a period of eight months.

Susie was re-evaluated twice after she was discharged from the Cottage. During the second evaluation the P.P.V.T. and the L.I.P.T. were administered. Both tests yielded identical I.Q.'s of 100. She had maintained her speech, but had not developed any more. She was referred for speech therapy in her home community. The reports of the therapist indicated that she was doing well and developing speech rapidly.

CHAPTER III

MARK H.

History

Mark was the first child born to his parents, although his mother had previously had several miscarriages. He was the product of a normal pregnancy and delivery. His mother received regular prenatal care. He weighed six pounds and five ounces at birth. The hospital records reported that he was considered to be normal at birth. The parents reported that he cried more than the average baby.

Early developmental stages were reported as follows: he sat with support at three months, sat without support at nine months and walked alone at fourteen months. Speech development was consistently delayed in all stages. He did not develop the use of single words until he was two years of age. Following hospitalization at the age of two years for acute pharyngitis, his speech decreased to an occasional "mama" or "daddy."

Because of concern about lack of speech Mark was referred by his local pediatrician to North Carolina Baptist Hospital at the age of three years, eight months. The diagnosis on that visit was mental retardation with some peculiar behavior. He was referred to the D. E. C. for a differential diagnosis.

He was first seen at the D. E. C. at the age of four years and three months. The evaluation revealed that balance, strength and gross motor activities were normal for his age. The child development specialist found Mark to be responsive but verbalizations were limited to grunts which appeared to have meaning to him. The speech pathologist found that he responded to auditory testing and that hearing was within the normal range. She felt his lack of speech was emotionally caused. The psychologist could not test Mark formally. She felt that inquiry into possible parental overcontrol of his activity was indicated. The medical diagnosis was childhood schizophrenia.

The social worker felt she had a difficult time obtaining a clear picture of the true relationship between Mark and his parents. They appeared to approach their relationship with an alarming degree of matter-of-factness; however, the relationship between the parents at that time was apparently good. They seemed to be able to draw a great deal of strength from each other.

The parents were told that the staff felt that Mark was not basically retarded but that Mark's problem was primarily emotional. Hospitalization in Amos Cottage was recommended for the purpose of extended diagnostic observation. Mark was admitted to the Cottage at the age of four years, eight months.

Observation and Diagnostic Therapy

Mark was not talking when admitted to Amos Cottage. His mother reported that he was becoming more of a behavior problem. He had some manneristic behavior, although this was usually precipitated by periods of excitement or stress. Very little change had occurred since Mark's evaluation. Eating and sleeping habits were poor.

Initially, Mark made rapid strides in the Cottage. He lost his manneristic behavior and he was able to interact warmly with both adults and children. He was not a behavior problem. Mark co-operated in group activities and there were no feeding problems. He did not begin to talk.

In an attempt to better identify his language problems, the speech pathologist at the D. E. C. began working with Mark on a regular basis. Mark was initially unresponsive to the therapeutic situation; however, once rapport was established, he began to make progress. He would often leave his group to go to the therapist when she entered the room. He laughed responsively and entered into games.

The P.P.V.T. was administered when Mark was four years, ten months of age. On this test he attained a mental age of four years, four months and an I.Q. of 89. The L.I.P.T. was administered at the age of four years and eleven months. On this test he attained a mental age of four years, nine months and an I.Q. of approximately 95.

Mark began to enjoy sound games. He could, without difficulty, imitate movements and sounds required for oral

speech examination. In therapy, Mark played imitative games making animal sounds. He would imitate the sounds of cows, dogs, cats and pigs. When asked what sounds were made by various animals, he would respond appropriately. He enjoyed vocal play, but he would make no attempts to communicate through speech. He preferred to make his needs and wants known through the use of complex gestures.

In an attempt to help Mark's parents understand their feelings toward their son, his parents were asked to enter counseling. As more information was obtained, the counselor learned that the marriage was not as stable as was believed during the initial evaluation. Both parents were extremely jealous of one another and had engaged in altercations. They disagreed on the method of Mark's discipline. Mrs. H. reported that she had not wanted to have children, and that she preferred to have Mark in the Cottage, rather than at home. Guilt feelings were associated with this rejection of her son. She was confused about her feelings and found it difficult to try to understand them.

During the period of time they were in counseling, Mr. and Mrs. H. found it difficult to involve themselves in the therapeutic program. Mrs. H. often failed to keep appointments and Mr. H. was unable to talk about his problems.

Four months after Mark was admitted to the Cottage he went home for the Christmas holidays. His parents decided not to return him to the Cottage. His father returned

to sign an Against Medical Advice form. Their counselor wrote a letter asking for an explanation. This letter was not answered.

Several months after Mark returned home, a local public health nurse made a home visit at the request of the speech pathologist at the D. E. C. Mark had lost many of the gains he had made in the Cottage and he was again becoming more of a behavior problem. Mark had not begun to talk. At the time of the visit Mark was five years and three months old.

Mark had made excellent progress in the Cottage. The most obvious areas of progress were in socialization and emotional growth. His verbal behavior was improving. Because the treatment program could not be completed, no prognosis for the development of speech could be made.

CHAPTER IV

TOM S.

History

Tom S. was the third child born to his parents. Both of his siblings were females and were twelve and six years of age at the time of his birth. He was the product of a full term uneventful pregnancy. Delivery was spontaneous and he weighed seven pounds and six ounces at birth. He was considered to be normal at birth.

Early developmental sequences were within normal limits. He sat alone at five months and walked at twelve. By the age of one year he was reported to have two words besides "mama" and "daddy." Pediatric examinations were reported as normal.

At the age of sixteen months he had a period of non-specific diarrhea which lasted approximately ten days. During this time he began having seizures which were characterized by sudden anteroflexion of the head and neck and throwing his arms up. The duration of these episodes was brief but they were repeated several times a day. An electroencephalogram was performed and a diagnosis of infantile spasms with hypsarrhythmia was made.[57]

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[57]This seizure disorder is accompanied by a high incidence (87%) of mental retardation. According to E. L. Gibbs, Marilyn M. Fleming and Frederick A. Gibbs,

During the next seventeen months many attempts were made to control the seizures with little success. Developmental progress was stagnated during this period. His motor progress regressed. At the age of thirty-two months the seizures stopped abruptly. Medication was continued two more years prophylactically. No seizures occurred after the medication was removed.

From the age of twenty-six months until the age of five years, six months, Tom was followed in a child neurology clinic in a neighboring state. During this period he became increasingly hyperactive. His behavior became totally unmanageable.

Excerpts of reports from the child neurology clinic are as follows. At the age of three years, Tom was very irritable, slept poorly and had severe temper tantrums. He constantly screamed, struggled and fought the neurologist when he attempted to examine Tom. The doctors felt that the outlook for the family relationship was poor because of Tom's hyperactivity.

At the age of four and a half he was still not talking. His mother reported that he had made visible gains in the area of receptive speech. She felt that he could understand

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"Diagnosis and Prognosis of Hypsarrhymia and Infantile Spasms," Pediatrics, XIII (January, 1954), pp. 66-73 certain factors may be used as indices of possible normal intellectual functioning. Early normal developmental functioning, the later the onset of this disorder and the absence of other types of seizure disorders are all factors which are present among children with this disease who may function normally after the seizures dissipate.

what was said to him. Because of his hyperactivity and the feeling that he would not get any better, institutionalization was recommended. The parents were quite adamant in their refusal to consider placement.

By the time Tom was five years of age the neurologist reported that he was pleasantly surprised by Tom's appearance. He appeared to be calmer, although still hyperactive and not speaking. He had a bright, intelligent look about him. The report of an EEG which had been performed on the occasion of his previous visit was normal.

In an effort to seek further help controlling Tom's hyperactivity, his parents requested that Dr. Alanson Hinman, Medical Director of the Developmental Evaluation Clinic, see him. Dr. Hinman had been a consultant during the initial episodes of seizures; however, he had not seen Tom since the age of twenty months. Dr. Hinman agreed to see Tom and an appointment was scheduled when Tom was five years and ten months of age.

At the time of Tom's appointment with Dr. Hinman, the parents reported that Tom had made gains in the areas of self-feeding, self-dressing and toilet training. He was sometimes destructive when angry and he was aggressive with other children. He preferred to have his eleven year old sister do things for him. The only words reported were "mama," "up" and "oh." He was occasionally echolalic for brief periods. A physical examination could not be completed;

however, he appeared to be more advanced in motor areas than in speech.

Dr. Hinman suggested a trial in Amos Cottage for behavioral modification and an attempt to better assess his potential. Tom's parents agreed to the recommendation and Tom was admitted to the Cottage at the age of six years.

Observation and Diagnostic Therapy

Tom adjusted rapidly to the Cottage. No reports of hyperactivity or aggression were made after the first two days. He made rapid progress in the area of socialization and he was able to relate well to children and adults. No feeding problems were noted and he began to make further attempts in the area of self-dressing.

Tom was seen by the speech pathologist two weeks after his admission to Amos Cottage. She reported that initially he was quite apprehensive but gradually became relaxed and interested in playing. The only vocalizations heard during a prolonged play period, interspersed with speech stimulation, were grunts. He became very upset upon entering the soundtreated room and free field testing had to be abandoned. He enjoyed listening to an auditory training record of animal and environmental sounds and gestured that he wanted to hear it again each time that it was finished. Pictures were shown to him illustrating the various sounds on the record. All those he identified by pointing to were correct: train whistle, auto horn, piano and gun shot.

The speech pathologist felt that further diagnostic tests were needed. She recommended play therapy to make communication meaningful and enjoyable. She requested that those who worked with him should refrain from demands or pressure for communication. She suggested that he enter speech therapy on a regular basis. He began therapy on a daily basis at the age of six years and two months.

During the first week of therapy Tom refused to enter the therapy room. He would scream and physically fight all attempts to take him to therapy. In an attempt to establish rapport, the therapist entered group activities at the Cottage. Gradually, he became responsive to the therapist. After a week he happily entered the therapeutic situation.

Once rapport was established, two diagnostic instruments were administered to Tom. At the age of six years and three months he attained a mental age of five years, one month and an I.Q. of 89 on the P.P.V.T. On the L.I.P.T., which was administered at the same time, he scored a mental age of six years and no months with an I.Q. of approximately 95.

During the first stages of therapy Tom began to make animal sounds on request. He could correctly imitate cows, dogs, horses and roosters. He avoided other forms of verbal communication. He used gestures or grunts to express himself. He related well to the therapist and he had good eye contact.

His first attempt at speaking came at the end of six weeks of therapy. Tom gestured to the therapist that he wanted some cereal located on a shelf above him. As the therapist reached for the box Tom pointed to a picture on the front of the box and said "Batman." He had correctly identified the picture.

Once the first word was used he did not hesitate to use others. He began to use single words appropriately, both in and out of therapy. His words were spontaneous and clear. He had no difficulty with articulation. An excellent use of the motor speech apparatus was demonstrated.

Tom advanced from single words to phrases five months after he entered therapy. One month later he began using short sentences. Often he would use sentences which had not been approached in therapy. Tom remained in the Cottage two months longer and was discharged at the age of seven years.

While Tom was in the Cottage attempts were made to help his parents understand their feelings about him. They reported that they had not made any attempts to discipline him because of his seizure problem. His mother said she felt sorry for him. His mother would not allow him to dress himself, and various members of the family carried him rather than allowing him to walk. His parents were able to deal realistically with these problems. They were able to begin

to set limits on him when he was at home for week-ends. At the time Tom was discharged from Amos Cottage the prognosis for continued progress was good.

CHAPTER V

CONCLUSIONS AND RECOMMENDATIONS

Certain characteristics are present among all three subjects. Although some of the traits are similar to those found among individuals who are severely delayed in speech development as a result of other causes, these subjects could not be diagnosed as mentally retarded, deaf, aphasic or psychotic. Criteria for a diagnosis of Developmental Psychogenic Mutism may be established by examining similarities shared by these three subjects, and contrasting these similarities with the traits which are common to each of the four other causes of severely delayed speech development.

Displayed Similarities among Subjects

Early Developmental History

The three subjects were products of full term, uncomplicated pregnancies. No consistent patterns were found in regard to parental age. Two of the children were first born and the third was the youngest of three children. Developmental tasks such as walking and sitting were within normal limits. Early language development was within established norms for two of the three subjects.

Home Environment

All three subjects were difficult to manage at home. Their parents reported the children to be hyperactive and often destructive. Two of the three children had poor eating habits, refusing all but a few foods. The parents reported that the sleeping habits of two of the subjects were unusual. They would refuse to go to bed and had to be rocked or allowed to fall asleep on a sofa.

Physical Deficiencies

No major illnesses occurred during the infancy of two of the three subjects. One child had infantile spasms with an abnormal EEG. A later EEG performed on the same child was normal. Only mild childhood diseases were present in the histories of two of the children.

Parents

All of the subjects came from unusual home situations. The mothers were found to be protective and the fathers were relatively uninvolved. The mother of the child who had infantile spasms stated that she overprotected her son because she felt sorry for him. One mother reported she had not wanted to have children. None of the parents was able to set limits on their children.

Speech

At five years of age none of the children had a reported expressive vocabulary of more than three words. The word "mama" was reported to have been meaningfully verbalized by all three subjects. Their parents reported that the subjects seemed to understand and could follow simple directions.

Testing

On the P.P.V.T. and L.I.P.T. all three subjects attained normal or near normal levels. Their performances on these tests provide indications of their potential ability. The subjects were capable of understanding speech at much higher levels than they were able to express it. They were able to accomplish items at their chronological level.

The subjects could imitate all the sounds and movements which are necessary for speech. They verbalized and enjoyed playing speech games. They were able to combine several nonsense syllables appropriately.

Progress in Therapy

After the subjects were hospitalized they made progress. Their hyperactivity decreased immediately. They began to respond to other children and adults. They began to actually seek interpersonal contact. The children began verbalizing prior to beginning to speak. First verbalizations

were in the form of imitations, primarily animal sounds. They progressed from imitations to appropriate responses when asked what sounds were made by certain animals.

Two of the subjects began talking at the end of four months of therapy. Their words were spontaneous and appropriate for the situation, for example: verbal responses elicited following the presentation of pictures of objects. Their recognition vocabulary increased rapidly. The two children began to use phrases and short sentences. Their acquisition of speech was similar to that of a normal child, although at a much later date. The one child who did not begin to speak was removed from therapy at the end of four months.

Differentiation from Other Causes of Mutism

Deafness

Deafness was not the cause of the severely delayed speech development since all of the subjects were found to have normal hearing, and since none of the children displayed any of the characteristics (previously discussed) of a deaf child.

Mental Retardation

None of the three subjects was found to be mentally retarded. Two tests of mental ability revealed that the children were able to function at normal or near normal

levels. Early developmental progress supports the premise of basically intact intellectual functioning.

Childhood Schizophrenia

All three of the subjects were able to establish interpersonal relationships. The one child who had appeared to be schizophrenic on initial evaluation was able, upon hospitalization, to relate well to adults and children. No manneristic behavior was found to be consistently present among the subjects. They were able to maintain good eye contact. The subjects were able to enter group situations with other children. As they began to acquire speech, all of the children used their abilities appropriately.

Childhood Aphasia

Aphasia is the most difficult of the four disorders to differentiate from Developmental Psychogenic Mutism; however, certain characteristics were present among the subjects used in this study which usually are not present in aphasic children: (1) ability to imitate speech sounds and movements, (2) proficient tongue, lip and jaw movements, (3) ability to comprehend speech within normal limits. Further, none of the subjects was in a program designed for aphasic children when they began to speak. Speech was acquired spontaneously once emotional factors were removed.

Establishing Criteria

The following conclusions have been drawn from the results of this study which may be used as criteria for establishing a diagnosis of Developmental Psychogenic Mutism:

1. Severely delayed speech development (found in all four disorders)

2. Ability to establish interpersonal relationships (found in mentally retarded, aphasic and deaf but not in childhood psychosis)

3. Absence of severe or profound hearing loss (found in deafness)

4. Reported hyperactivity (may or may not be found in children who suffer from the other four disorders)

5. Ability to respond to a therapeutic program (found in deafness, aphasia and mental retardation but less likely in childhood schizophrenia)

6. Tests of receptive language and nonverbal performance abilities within normal limits (not present in mental retardation or childhood schizophrenia but may be present in deaf or aphasic children)

7. Early motor development within normal limits (not present in mental retardation but may be present in the other four disorders)

8. Upset home situations with overprotective mothers (may or may not be present in the other four disorders)

9. Ability to imitate sounds (not present in childhood schizophrenia, aphasia or except to a limited degree in mental retardation or deafness)

10. Speech begins with animal sound imitations (not one of the criteria for the other four disorders)

11. Words appear spontaneously (not present in deafness, aphasia or childhood psychosis but may be present in mental retardation)

12. Speech develops as it would in a normal child but at a much later date (found in mental retardation but not usually in the other three disorders).

Recommendations for Further Study

Further study in establishing Developmental Psychogenic Mutism as a discrete diagnostic category is indicated by the results of this study. A larger population of children who exhibit the same characteristics is necessary before the disorder can be firmly established as a link to severely delayed speech development.

The subjects employed in this study were diagnosed after a long period of diagnostic therapy. Research needs to be done to find the means for determining these children on initial evaluation.

Therapeutic procedures need to be examined. Two of the children did begin to speak but the process was long and involved. The subjects required hospitalization before

they began to speak. After one of the subjects returned home she did not acquire more speech until after she entered speech therapy. Intensive application of therapeutic measures appears to be indicated. Further study in the area of rehabilitative techniques is needed. Therapeutic measures which are applied to parents also need to be studied. Specific study in the reported parental overprotection would be helpful in determining the direction of the therapy for parents.

Longitudinal studies on the continued acquisition of speech and on the child's ability to perform in school are indicated. The primary questions which will need to be answered are related to complete or partial recovery from the difficulty. Unless these children are able to continue developing speech at a rapid pace they will be handicapped upon entering school.

Research will also need to be applied to the preventive aspects of Developmental Psychogenic Mutism. As the disorder is studied more thoroughly, methods of prevention need to be developed. Early diagnosis and treatment are essential.

CHAPTER VI

SUMMARY

The term Developmental Psychogenic Mutism has been used in this study in an attempt to label a specific type of mutism. It has been applied as a descriptive term, which indicates that this disorder is primarily emotionally rather than physically based. The term does not describe all children who are mute from emotional causes.

Three children who were severely delayed in the acquisition of speech were selected as subjects for this study. The similarities they shared were compared and contrasted with four of the recognized causes of severely delayed speech development in an attempt to determine whether or not the descriptive term Developmental Psychogenic Mutism should be applied.

Each subject was hospitalized in Amos Cottage for behavioral and diagnostic therapy in an attempt to determine potential. The case histories of each subject were presented, and each subject was studied in diagnostic therapy for a period of not less than four months. Tests of receptive abilities and performance were administered to each subject. The parents were also studied in an attempt to determine the intrafamilial relationships.

The results of the study indicate that the subjects in this study could not be classified as deaf, mentally retarded, aphasic or psychotic. They shared certain similarities in common, such as: normal early developmental sequences, disturbed home situations, hyperactivity, normal intelligence on two standardized tests and ability to vocalize and imitate sounds.

Developmental Psychogenic Mutism was applied as a diagnostic term for these children because of their apparent emotional problems resulting in the absence of speech and because their behavior and background were sufficiently different from other established diagnostic categories.

The need for further research was indicated by the results of this study. A larger population should be examined before this diagnostic category can be established. Test instruments which help to reveal intrafamilial relationship need to be developed. Longitudinal studies would be helpful for evaluating therapeutic techniques. Early diagnosis, treatment and prevention should be the ultimate goals of research in relation to Developmental Psychogenic Mutism.

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